

## STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft Louisiana Pollutant Discharge Elimination System Permit No. LA0020401; AI 33939; PER20050001 to discharge to waters of the State of Louisiana as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality  
Office of Environmental Services  
P. O. Box 4313  
Baton Rouge, Louisiana 70821-4313

- I. THE APPLICANT IS:** Town of Cotton Valley  
Cotton Valley Municipal Wastewater Treatment Facility  
P.O. Box 415  
Cotton Valley, LA 71018

- II. PREPARED BY:** Angela Marse

**DATE PREPARED:** January 18, 2006

- III. PERMIT ACTION:** LPDES permit LA0020401, AI 33939; PER20050001

LPDES application received: December 29, 2005

LPDES permit issued: May 18, 2000

LPDES permit expired: May 31, 2005

## IV. FACILITY INFORMATION:

- A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the Town of Cotton Valley.
- B. The permit application does not indicate the receipt of industrial wastewater.
- C. The facility is located approximately 0.5 miles east of La. Hwy. 7 in Cotton Valley, Webster Parish.
- D. The treatment facility consists of a bar screen, oxidation ditch with brush rotor, 2 clarifiers, chlorine contact chamber, sludge pumps and four sludge drying beds. Disinfection is by chlorination.

- ### E. Outfall 001

Discharge Location: Latitude 32° 48' 32" North  
Longitude 93° 24' 52" West

**Description:** treated sanitary wastewater

Design Capacity: 0.15 MGD

Type of Flow Measurement which the facility is currently using:

### Combination Totalizing Meter / Continuous Recorder

**V. RECEIVING WATERS:**

The discharge is by effluent pipe into an unnamed ditch, thence into French Creek in segment 100501 of the Red River Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 100501 of the Red River Basin are as indicated in the table below<sup>1/</sup>:

Overall Degree of Support for Segment	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Partially Supported	Full	Full	Not Supported	Full	N/A	N/A	Full

<sup>1/</sup>The designated uses and degree of support for Segment 100501 of the Red River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

Section 303 (d) of the Clean Water Act as amended by the Water Quality Act of 1987, and EPA's regulations at 40 CFR 130 require that each state identify those waters within its boundaries not meeting water quality standards. Segment 100501, Bayou Dorcheat, - Arkansas State Line to Lake Bistineau (scenic), of the Red River Basin is on the 2004 303(d) List of Impaired Waterbodies. The suspected causes of impairment are mercury and dissolved oxygen/low DO (EPA - Category 5).

Suspected causes for impairment which were not delisted and are not directly attributed to similar point sources have been eliminated in the formulation of effluent limitations and other requirement of this permit. This is the case with mercury. Mercury impairments are attributed to atmospheric deposition. Also, the mercury impairment listed for subsegment 100501 applies only to the waterbodies specifically identified in LDEQ's Final 2004 Integrated Report, and not to the entire subsegment unless so specified. Because the discharge from this facility is not directly into Bayou Dorcheat, mercury will not be addressed in the permit development.

Organic enrichment/low DO will be addressed in permit development. BOD<sub>5</sub> is used as a method to measure the amount of dissolved oxygen in the waste stream utilized by organisms during the decomposition of organic material over a five day period. Monitoring for BOD<sub>5</sub> allows for the determination of the rate of oxidation in the waste stream. (Higher BOD<sub>5</sub> indicates lower dissolved oxygen and higher organic content.) The proposed permit contains BOD<sub>5</sub> effluent limits consistent with the previous permit.

TMDL Studies have not been conducted for the Red River Basin. Therefore, permit effluent limits are the same as the previous permit. TMDLs for the Red River Basin are scheduled for completion by 2008. A reopener clause will be established in the permit to allow for any requirements or more stringent effluent limitations imposed by a TMDL.

#### VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 100501 of the Red River Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish & Wildlife Service (FWS). This strategy was submitted with a letter dated October 21, 2005 from (Watson) to Gautreaux (LEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered species of candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

**VII. HISTORIC SITES:**

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

**VIII. PUBLIC NOTICE:**

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mrs. Angela Marse  
Permits Division  
Department of Environmental Quality  
Office of Environmental Services  
P. O. Box 4313  
Baton Rouge, Louisiana 70821-4313

**IX. PROPOSED PERMIT LIMITS:**

**Final Effluent Limits:**

**OUTFALL 001**

Currently, there are no existing Areawide Policies or TMDLs for Segment 100501 of the Red River. Therefore, effluent limitations will be based on the Statewide Sanitary Effluent Limitations Policy. TMDLs studies for the Red River Basin will be complete by 2008. The permittee should be aware that more stringent effluent limitations may be contained in the next renewal permit.

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
BOD <sub>5</sub>		10 mg/l	15 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this treatment type and size.
TSS		15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.

**Other Effluent Limitations:**

**1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgment in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

**2) pH**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

**3) Solids and Foam**

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

**X. PREVIOUS PERMITS:**

NPDES Permit No. LA0020401: Issued: May 18, 2000  
Expired: May 31, 2005

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Daily Avg.</u>	<u>Daily Max.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Continuous	Recorder
BOD <sub>5</sub>	10 mg/l	15 mg/l	2/month	Grab
TSS	15 mg/l	23 mg/l	2/month	Grab
Fecal Coliform Colonies	200	400	2/month	Grab

The permit contains pollution prevention language.  
The permit contains pretreatment language.

**XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:**

**A) Inspections**

A review of the files indicates the following most recent inspection was performed for this facility.

Date - September 3, 2004  
Inspector - LDEQ  
Findings and/or Violations -

1. Only one clarifier was working at the time of the inspection.
2. There was a build up of solids in chlorine contact chamber.
3. Vegetation needed to be removed from the sludge drying beds.
4. DMRs were being submitted according to the permit. They indicated several TSS violations.

**Several incidents were reported for this facility in 2005.**

February 22, 2005 – sewage overflow from a manhole.  
May 1, 2005 – Lift station out of service, overflowing.  
June 22, 2005 – City sewer lined ruptured in resident's yard.

**B) Compliance and/or Administrative Orders**

A review of the files indicates the following most recent enforcement actions administered against this facility:

**LDEQ Issuance:**

Docket # - WE-C-03-0119  
Date Issued – February 12, 2004  
Findings of Fact:

1. Respondent failed to operate and maintain the plant correctly. Two sludge drying beds were inoperable and a build-up of solids was observed during an inspection (2001).
2. During an inspection (2002), it was noted the Respondent did not have back up power source for the sewer plant. DMRs were not being submitted to the Regional Office.
3. An inspection (2003) revealed several excursions on the DMRs.

Order:

1. Respondent was ordered to correct all deficiencies.
2. A compliance schedule was included for the respondent to upgrade the facility. The respondent was ordered to submit quarterly progress reports.
3. Respondent was ordered to submit a report within 30 days detailed circumstances and corrective actions for deficiencies.

The most recent progress report was submitted in July, 2005. The respondent has been unable to secure funding through a revolving loan or LCDBG grant. The compliance schedule was revised with a date to achieve compliance set for 2007.

C) **DMR Review**

A review of the discharge monitoring reports for the period beginning December, 2004 through October, 2005 has revealed the following violations:

<u>Effluent Characteristic</u>	<u>Number of Violations</u>
BOD <sub>5</sub> - (concentration)	8
TSS - (concentration)	29
Fecal Coliform	1
pH	0

\*1 Loadings calculations for several reports were not correct.

**XII.**

**ADDITIONAL INFORMATION:**

Please be aware that the Department will be conducting a TMDL in the Red River Basin scheduled for completion in 2008. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions as a result of the TMDL. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.150 MGD.

Effluent loadings are calculated using the following example:

$$\text{BOD: } 8.34 \text{ lb/gal} \times 0.150 \text{ MGD} \times 10 \text{ mg/l} = 13 \text{ lb/day}$$

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between 0.1 and 0.5 MGD.

<u>Effluent Characteristics</u>	<u>Monitoring Requirements</u>	
	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Continuous	Recorder
BOD <sub>5</sub>	2/month	Grab
Total Suspended Solids	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

**Pretreatment Requirements**

Based upon consultation with LDEQ pretreatment personnel, standard pretreatment language is included in the proposed permit. This is consistent with the previous permit.

**XIII      TENTATIVE DETERMINATION:**

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in this Statement of Basis.

**XIV      REFERENCES:**

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Town of Cotton Valley, Cotton Valley Municipal Wastewater Treatment Facility, December 29, 2005.